

ABSTRACT

In a fiber optic current sensor having a coiled sensor fiber (1) which encloses a current conductor (S), and at least one phase delay element (4, 5) adjoining the sensor fiber (1), the at least one phase delay element (4, 5) has a phase delay with a temperature dependence such that it at least approximately compensates for a temperature dependence of a Verdet's constant (V) of the sensor fiber (1). It is thereby possible to achieve an at least approximately temperature-independent sensor signal.

(Figure 1)